

The Preservation of the Monumental Heritage of Easter Island

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"All that we really know of ourselves and our world is the past; and all that we really know of the past is that part which has survived in the form of material objects. . . . Conservation is the means by which we preserve them. It is an act of faith in the future." —P.R. Ward

Introduction

The urge to preserve monuments and sites arises from the universal need of knowing and understanding the origins and developments of human societies (ICOMOS 1964, 1990). This is deeply linked to the psychological need to know our history and recognize a familiar environment so as not to feel unprotected (Mattinen 1988). These concepts are particularly appropriate for the case of the monumental heritage of Easter Island.

The challenge of preserving this heritage is enormous. The sheer numbers of it—about 300 *ahu*, 1000 *moai* of which some 400 are in the Rano Raraku quarry alone, and 5000 petroglyphs—is enough to daunt anybody. Due to size and number, it must be preserved outdoors, exposed to the many deteriorating factors, which increases the complexity of the problem. Furthermore, to maintain the esthetic value of these monuments the sites around them need to be preserved as well.

Preservation is used in this text as the comprehensive term encompassing conservation and maintenance procedures, and, when they are deemed necessary, restorations. This definition is based on the New World use of the word "preservation" which is used extensively in reference to the natural heritage. Whereas in the Old World, preservation implies that the monument is kept "as is" and without any treatment whatsoever, e.g., an object put into a museum, the term applied to natural heritage includes all actions necessary to keep it "as is". The adoption of this term is logical since the monumental heritage has to be preserved in its natural setting, and therefore the term includes all actions that will ensure that the monument is kept "as is".

Conservation

The term "conservation" is used to refer to any intervention that will help maintain the monument in its present state and has been traditionally applied to those treatments that halt, or slow down, the deterioration process or that protect it from deleterious agents. The treatments are concerned, in general, with the deterioration of the material of the monument itself, i.e., stone. On Easter Island, various kinds of stone have been used, such as volcanic tuff, scoria, basalt boulders and slabs, and even lava flows. Stone weathers through the combined action of different agents acting on it: rain, moisture, biological growth, wind and temperature changes (Charola & Lazarini 1987/88, Charola & Weber 1993, Charola et al. 1993).

Specific conservation treatments have been devised to protect the stone against natural weathering. These can be separated broadly into consolidation and hydrophobization treat-

ments. Consolidation treatments introduce new material into the matrix of the stone thus hardening it. For the case of Easter Island statues, the recommended consolidation treatment is based on the in-depth application of silicate esters (alkoxy silanes) that will eventually deposit in it a residue of amorphous silica. Since these volcanic stones have a vitreous matrix, it is expected that the new material will bond to the original one due to the similarity in nature. The hydrophobization, i.e., water-repellent, treatment is based on products (alkyl alkoxy silanes) that are applied superficially to prevent the penetration of liquid water into the stone (Roth 1990 & 1990a, Bahamondez 1990). This is in essence a protective coating that requires a periodic re-application, since it weathers away.

Conservation treatments are to be considered as "extraordinary maintenance" (NORMAL 20/85 1986) since maintenance is the key to the successful preservation of a monument.

Maintenance

Maintenance refers to all regular and periodic procedures. These can be subdivided into ordinary or extraordinary interventions. The first include routine measures, such as control of vegetation and stabilization of soils on slopes. These problems, perceived as damaging to the sites may well affect the monuments therein by unstabilizing them structurally (Charola et al. 1993), as illustrated by the required stabilization of the stone houses at Orongo (Niemeyer & Arrau 1983) or the threat to the Ana Kai Tangata cave (Vouvé et al. 1990).

The second includes those interventions that require a series of investigations and studies regarding the state of conservation of the monument and the adequate conservation treatment to be applied. The application of a hydrophobization agent falls within extraordinary maintenance, but its periodic re-application can well be considered as ordinary maintenance. Unfortunately, the term maintenance has a low-tech connotation which to the average person is equivalent to keeping a site clean. Conservation treatments, perhaps due to their cost, are perceived as an ultimate recourse and in general have not been understood to be only a temporary remedy to extend the life of a monument.

Maintenance, which should be carried out on a regular basis serves at the same time as a monitoring system to detect any significant change in the monuments or the sites. Early detection is fundamental to avoiding irreparable damage.

Restoration

Restoration, on Easter Island, refers primarily to the anastylis of the *ahu*, i.e., the re-assembly of the *ahu* platforms and the re-erection of their statues. It is evident, that this can only be carried out when the monuments have not been too disturbed or vandalized. A case in point is that of *ahu* Tongariki, which was completely destroyed by the action of a tidal wave in 1960. This site can at best be faithfully reconstructed, but

this cannot be called a restoration.

Another example of restoration can be found in the reconstruction of the houses at the ceremonial village of Orongo (Mulloy 1975), many of which had partly collapsed or had been taken apart during the nineteenth century (Drake 1992).

It is obvious that any restoration or reconstruction needs a full archaeological investigation and the corresponding documentation of the site, since the restoration intervention is modifying both the monument and the site, erasing some information forever.

Preservation and Protection

A monument in a ruined state is far harder to preserve for the future than one that has been restored and is comprehensible to the public (Mulloy & Figueroa 1966). This is the main reason for restoration of monuments: in ruins, they suffer vandalism; restored, they command respect.

Yet even in a restored monument, the material still undergoes its slow weathering or in some instances fast deterioration for the environment around it has changed, i.e., air pollution, growth of lichens and other bio-organisms and anthropogenic action.

A conservation treatment will slow down the weathering rate and the bio-growth or protect it from natural agents as rain. But it cannot address the anthropogenic factor. And this can be the single most deleterious agent for a monument, since it ranges from vandalism to neglect (Charola & Weber 1993, Charola et al. 1993, Lee 1990). Addressing the anthropogenic factor is even more difficult than finding a technical solution to slowing down the weathering of stone. It requires the protection of the monument from human action by human resources.

This problem needs to be addressed at various levels. Government agencies have to co-ordinate and plan all their activities on the Island so as to minimize their impact on the sites (Rauch and Weber 1994). This requires agencies well informed on the nature of the problems presented by these monuments. Furthermore, the protection of this heritage calls for adequate legislation regarding all activities related to it. And this, to serve its purpose, has to be enacted and enforced (Charola et al. 1993) which requires in turn an informed public to pressure government into action (Beaty 1984).

From the above brief discussion it is obvious that the key element in the long-term protection of monuments and sites on Easter Island is raising public consciousness to their frailty and susceptibility to damage. Awareness is the first step in acquiring the necessary information for their preservation.

Conclusion

Having concluded that it is fundamental to raise public awareness the next problem is how to achieve this result. The media, school curricula and a public alerting campaign is the first obvious thought. Yet the media, probably because of public demand, focuses more on negative issues than on information campaigns. School curricula have a large inertia to change and a public-alerting campaign requires government input which is slow to develop unless an emergency situation is perceived.

Apart from the methods mentioned above, the most significant

results have probably been obtained through artists' contribution. In particular, cartoonists have proved to be extremely effective in raising public awareness to critical issues since they are capable of pin-pointing the essence of the problem with acute clearness. In the case of the heritage of Easter Island, "Man has turned out to be his worst enemy" (Kelly 1972) as cartoonist Walt Kelly stated in reference to ecological preservation in the US.

The public notoriety of Easter Island and its monuments is partly due to its regular appearance in world-wide commercial advertisements and as a subject for many cartoons. Yet only a small minority of these address the issue of preservation; among which those of Chilean artist Lukas are worthy of mention. The process of increasing public awareness follows the chicken and egg paradox. Only a popular issue will attract more artists to address it, making it in fact more popular. To surpass this threshold it is necessary that we all take part in it. We all must help to make preservation the popular issue it needs to be to provide the long-term protection that this unique heritage requires.

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